

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A method of reclaiming silicon wafers, comprising:

in the following order,

a film removal process;

a heating/removal process;

a polishing process; and

a cleaning process;

wherein the heating/removal process is between the film removal process and the polishing process,

wherein the heating/removal process comprises (i) heating the silicon wafer at 150-300 °C for 20 minutes to 5 hours and (ii) a chemical process that comprises removing a surface part of the silicon wafer by etching the top surface of the silicon wafer with a solution comprising one or more of an alkaline hydroxide and an alkaline carbonate.

Claim 2 (Currently Amended): The method of reclaiming silicon wafers according to claim 1, wherein the heating/removal process further comprises a mechanical removal process.

Claims 3-4 (Canceled).

Claim 5 (Previously Presented): The method of reclaiming silicon wafers according to claim 1, wherein the method comprises both

an immersion process comprising chemically processing the silicon wafer with a chemical processing liquid; and

the heating/removal process comprising heating the silicon wafer at 150-300 °C for 20 minutes to 5 hours and removing a surface part of the silicon wafer between the film removal process and the polishing process.

Claim 6 (Previously Presented): The method of reclaiming silicon wafers according to claim 5, wherein the chemical processing liquid comprises:

a hydrogen peroxide aqueous solution; a mixed solution of a hydrogen peroxide aqueous solution, an ammonia aqueous solution, and water;

a mixed solution of a hydrogen peroxide aqueous solution, hydrochloric acid, and water; alkaline hydroxide aqueous solution; or

an alkaline carbonate aqueous solution.

Claim 7 (Previously Presented): The method of reclaiming silicon wafers according to claim 5, wherein the heating/removal process comprises a mechanical removal process.

Claim 8 (Previously Presented): The method of reclaiming silicon wafers according to claim 5, wherein the heating/removal process comprises a chemical removal process.

Claim 9 (Previously Presented): The method of reclaiming silicon wafers according to claim 8, wherein the chemical removal process is performed using alkaline hydroxides and/or alkaline carbonates.

Claim 10 (Previously Presented): The method of reclaiming silicon wafers according to claim 6, wherein the heating/removal process comprises a mechanical removal process.

Claim 11 (Previously Presented): The method of reclaiming silicon wafers according to claim 6, wherein the heating/removal process comprises a chemical removal process.

Claim 12 (Previously Presented): The method of reclaiming silicon wafers according to claim 11, wherein the chemical removal is performed using alkaline hydroxides and/or alkaline carbonates.

Claim 13 (Previously Presented): The method of reclaiming silicon wafers according to claim 12, wherein the alkaline hydroxide and/or carbonate are selected from a group consisting of potassium hydroxide, potassium carbonate, sodium hydroxide, sodium carbonate, and quaternary alkyl ammonium hydroxides.

Claim 14 (Previously Presented): The method according to claim 1, wherein the heating/removal process does not form any oxygen donors.

Claim 15 (Previously Presented): The method according to claim 1, wherein the heating/removal process is carried out in air.

Claim 16 (Previously Presented): The method according to claim 1, wherein the maximum temperature is 300°C.

Claim 17 (Previously Presented): The method according to claim 1, wherein the heating/removal process is carried out to provide a silicon wafer having the same specific resistance of a virgin silicon wafer.

Claim 18 (Previously Presented): The method according to claim 1, wherein the heating/removal process does not vary the specific resistance of a P-type or N-type silicon wafer.

Claim 19 (Previously Presented): The method according to claim 1, further comprising:

one or more of (i) carrying out monitoring of a semiconductor chip manufacturing process with the silicon wafer and (ii) setting up one or more operating conditions of a semiconductor fabrication machine with the silicon wafer, before the film removal process.

Claim 20 (Previously Presented): The method according to claim 1, wherein the silicon wafers are testing wafers.

Claim 21 (Previously Presented): The method according to claim 1, wherein the method is carried out to reclaim the silicon wafer without Cu contamination.

Claim 22 (Previously Presented): The method according to claim 1, wherein the method is carried out to reclaim the silicon wafer.

Claim 23 (New): The method of reclaiming silicon wafers according to claim 1, wherein the heating/removal process includes etching the top surface of the silicon wafer with a solution comprising an alkaline hydroxide.

Claim 24 (New): The method of reclaiming silicon wafers according to claim 1, wherein the heating/removal process includes etching the top surface of the silicon wafer with a solution comprising an alkaline carbonate.

Claim 25 (New): A method of reclaiming silicon wafers, comprising:
in the following order,
a film removal process;
a heating/removal process;
a polishing process; and
a cleaning process;
wherein the heating/removal process is between the film removal process and the polishing process; and
wherein the heating/removal process comprises heating the silicon wafer at 150-300°C for 20 minutes to 5 hours and removing a surface part of the silicon wafer.

Claim 26 (New): The method of reclaiming silicon wafers according to claim 1, wherein the chemical process etches the top surface of the silicon wafer to about 1 μm depth.